

**IN THE CLAIMS**

Claims 1-9 (Cancelled).

10. (Currently Amended) A solid-electrolyte secondary battery comprising:

- (a) a positive electrode;
- (b) a negative electrode;
- (c) a solid electrolyte comprising a matrix polymer comprising a first fluorocarbon polymer having a weight-average molecular weight of greater than 550,000;
- (d) wherein the matrix polymer further comprises a second fluorocarbon polymer having a weight-average molecular weight of greater than 300,000 and less than 550,000;
- (e) wherein the matrix polymer comprises 30 percent or more by weight of the fluorocarbon polymer having a weight-average molecular weight of greater than 550,000;
- (f) wherein the positive electrode has a face which is directed towards the negative electrode and the solid-electrolyte layer is formed on the face of the positive electrode and impregnates into the face a solution in which the solid electrolyte is dissolved; and
- (g) wherein the negative electrode has a face directed toward the positive electrode and the solid-electrolyte layer is formed on the face and impregnates into the face a solution in which the solid electrolyte is dissolved.

Claims 11-12 (Cancelled).

13. (Currently Amended) The solid-electrolyte secondary batter of claim 10, wherein the first fluorocarbon polymer is one of a polyvinylidene fluoride and or a polyvinylidene fluoride/hexafluoropropylene copolymer.

14. (Previously Presented) The solid-electrolyte secondary battery of Claim 10 wherein at least one of the positive and negative electrodes comprises a binder comprising the matrix polymer of the solid electrolyte.

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15. (Previously Presented) The solid-electrolyte secondary battery of Claim 10 wherein the negative electrode comprises a material which is capable of intercalating or deintercalating a lithium ion.

16. (Previously Presented) The solid-electrolyte secondary battery of Claim 15 wherein the material which is capable of intercalating or deintercalating a lithium ion comprises a carbon material.

17. (Previously Presented) The solid-electrolyte secondary battery of Claim 10, wherein the positive electrode comprises a composite oxide of lithium and a transition metal.

Claims 18-19 (Cancelled).

20. (Currently Amended) The solid-electrolyte secondary battery of Claim 10, wherein the ~~solid electrolyte comprises a~~ first fluorocarbon polymer ~~having~~ has a weight-average molecular weight of 1,000,000 or more.

21. (Currently Amended) The solid-electrolyte secondary battery of Claim 10, wherein the ~~solid electrolyte comprises a~~ first fluorocarbon polymer ~~having~~ has a weight-average molecular weight of between 1,000,000 and 3,000,000.

22. (Currently Amended) A battery comprising:  
a positive electrode;  
a negative electrode; and  
a solid electrolyte provided between the positive electrode and the negative electrode, the solid electrolyte comprising a first fluorocarbon polymer having a weight-average molecular weight of greater than 550,000.

23. (Previously Presented) The battery of claim 22, wherein the solid electrolyte further comprises a second fluorocarbon polymer having a weight-average molecular weight of greater than 300,000 and less than 550,000.

24. (Previously Presented) The battery of claim 23, wherein the solid electrolyte comprises 30 percent or more by weight of the fluorocarbon polymer having a weight-average molecular weight of greater than 550,000.

25. (Previously Presented) The battery of claim 22, wherein the positive electrode has a face which is directed towards the negative electrode and the solid-electrolyte layer is formed on the face of the positive electrode and impregnates into the face a solution in which the solid electrolyte is dissolved.

26. (Previously Presented) The battery of claim 22, wherein the negative electrode has a face directed toward the positive electrode and the solid-electrolyte layer is formed on the face and impregnates into the face a solution in which the solid electrolyte is dissolved.

27. (Currently Amended) The solid-electrolyte secondary battery of Claim 22, wherein the ~~solid electrolyte comprises a~~ first fluorocarbon polymer ~~having~~ has a weight-average molecular weight of 1,000,000 or more.

28. (Currently Amended) The solid-electrolyte secondary battery of Claim 22, wherein the ~~solid electrolyte comprises a~~ first fluorocarbon polymer ~~having~~ has a weight-average molecular weight of between 1,000,000 and 3,000,000.